UNIMAS InfoSERV
A Newsletter For Information Services
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UNIMAS CORPORATE INFORMATION ARCHITECTURE (CIA) PLAN

1. Definition
The CIA Plan is a blueprint and technical framework for providing information technology support and services to any level of operations. It is a strategic master plan that provides a road map and a set of priorities for systems development and implementation.

A clear vision and direction in Information Technology (IT) strategic planning ensures the realisation of benefits from IT investments.

2. IT Policy/ Strategy
- integrating IT into all aspects of university functions;
- developing new and innovative IT applications;
- advancing IT through research and development,

by:
- shaping an information and knowledge rich environment to promote excellence in all university functions;
- encouraging and promoting the development of professional and administrative staff, and students to be effective knowledge workers;
- ensuring that the management and the administration of university functions are optimally supported by an integrated of information system (IS) and support services; and
- ensuring that academic and computing needs of staff and students are met.

3. Information System Development
The CIA views the individual worker as the driving component system. It supports users in their key roles as data producers and information consumers. Discrete applications on a workstation may be integrated into a one-stop service to support the flow of activities. Requirements with the highest organisational impact and greater need of information linkages are given high priority.

Identified services and a proposed schedule for their development is illustrated on page 3.

4. Management and Project Organisation
The IT policy is very aggressive and expectations of IT in the university run high. Successful implementation, however, will require the full and open involvement of the UNIMAS community. Several formal and semi-formal mechanisms to facilitate this include:

- The University Information Services Committee (UISC): chaired by the Vice-Chancellor
- The Technical Committee for Information Services(TECIS): a committee of the UISC
- Application Groups: comprising user representatives from major application areas and appropriate technical staff (eg. Finance, HRM and MIS staff to develop financial and HRM applications; faculty/unit staff and the web team to develop home pages; etc.)

The roles of the committees above have been described earlier in InfoSERV No. 1. The Application group is a vital mechanism to ensure that applications meet user requirements.

5. IS Benefits
IT is only one of the several vital enablers that work together to bring out changes in processes. IS applications will help realise the paper-less office, an efficient and effective work environment that optimises workflow and cooperative work. Systems planned to achieve this include the Workflow/EDI, Document Imaging System and virtual view (web pages). Web pages aside (already common knowledge!), subsequent issues of InfoSERV will elaborate on what these systems do and how they can help you in your work.

6. People Factor
Development of technical systems without accompanying efforts in IT human resource development will be a lost investment. Technology assimilation budgets for IT should include at least 30% for peopleware in order to achieve the desired competitive edge (see illustration above).

UNIMAS addresses this people factor partly through its staff development modules. Staff should take this opportunity to develop skills to use the computer, electronic communication and to implement and network new processes, so that the full benefits of IT can be gained.

Part II in next issue...

Have you browsed http:// www.unimas.my? What do you think? Webteam@fit.unimas.my welcomes your feedback.

CONTENTS

CAIS/CNS Services Update

Optical Mark Reader Scanner

The OMR scanner is a scanner that allows you to scan the OMR form to collect the score of correct responses and incorrect responses by comparing the test data to "key" data. With this facility, users may process, store and retrieve data collected by the scanner. This facility is now available at CAIS/CNS.

CDNET (CD-ROM Databases Available Campus Wide)

The above facility is now available online. All networked users can now access CDNET from their own PCs.The databases available at the moment are Silver Platter : Georef, Medline Express, Commonwealth Agricultural Bureax (CAB) Abstracts, Aquatic Sciences & Fisheries Abstracts (ASFA), Cancerlit, Nursing & Allied Health (CINAHL)-CD, Life Sciences Collection, Sociofile, Health Plan and International Pharmaceutical Abstracts; UMI Proquest : Social Sciences Index/Fulltext (SSI/SSO) and also Wilsondisc : Humanities Index.
For more information, e-mail *mag@adm.unimas.my / sumaizan@adm.unimas.my / nurul@adm.unimas.my / r.inf@cais.unimas.my.*

A Spatial Information Resource for Borneo

What is spatial information, and why is it important?

Spatial Information refers to data about objects and their location in space. The emphasis on precise location data, usually using a global coordinate system, sets spatial information systems apart from other types of databases. Landform and other features of a given region is an example of spatial information, allowing access to data such as elevation, slope, soil type, vegetation cover, etc., at any given location. Most instances of spatial information are geographic, thus 'Geographic Information Systems' (GIS) is the more commonly heard phrase.

Spatial Information is a vital ingredient of practically any application in earth resource tracking and management, including management of agriculture crops, urban growth, weather prediction, flood and fire control, and environmental impact studies. Many global problems like tropical deforestation, acid rain, rapid urbanisation, overpopulation, hunger, spread of disease, and change of global climate cannot be effectively addressed without accurate spatial data.

Spatial information technology comprises three component technologies dealing with the acquisition and analysis of spatial data. Data acquisition, particularly over wide geographical areas, can be a massive and time-consuming exercise. This is facilitated by Remote Sensing technology. Satellites and airborne systems provide digital images and aerial photographs from which some basic data may be extracted. Because of the noise and distortions inherent in the acquisition equipment and because of the need for automatic classification and interpretation, Image Processing technology is required. Its main tasks are to enhance particular features of the image, restore degradation, segment and interpret digital images. Finally, remotely-sensed data need to be combined with other geographic data such as cadastral boundaries, demographs, maps and other images or graphics. A GIS system is then necessary to store, manage, display and analyse overlays of geographic information.

The UNIMAS Spatial Analysis Laboratory

Recognising the strategic importance of spatial information, the Spatial Analysis Laboratory (SAL) has been set up to:

a) develop GISs and their applications for Sarawak, Sabah and eventually the whole island of Borneo
b) support education and training in spatial information technology
c) promote remote-sensing applications and related technologies, in line with the National Remote Sensing Programme (NRSP).

It is currently equipped with minimal but powerful computing facilities such as high-end graphical workstations (SGI Dual-Head Indigo2) and servers (Sun Sparc HS21), and includes important accessories such as a plotter, colour scanner, printers, and a digitiser. Available software will include ER MAPPER, VISTA, ARC/INFO, DRAGON, IDRISSI and AUTOCAD.

Among its more immediate uses will be to support on-going research at the Faculties of Resource Science and Technology, Social Sciences, Engineering and IT. It will also support teaching, especially the proposed M.Sc in Spatial Information Technology Programme. This is an interdisciplinary programme with courses and projects offered by three faculties: Resource Science and Technology, Engineering and IT. It will address the need for (1) resource scientists capable of exploiting the technology in their respective domains, and (2) skilled IT specialists capable of updating, enhancing, and developing spatial information software.

Other than teaching and research activities, SAL is also intended to support consultancy services and joint university-industry projects that require spatial information. Potential clients include the Forestry department and the Ministry of agriculture.

Computer Assisted Learning Laboratory (CAL Lab) for Medical Instruction

The Faculty of Medicine and Health Sciences has developed a computer laboratory which uses different strategies to assist the faculty in instructing medical students.

This laboratory is connected to the internet so that faculty members and students have access to the vast arrays of medical data bases that are available. All the Macintoshes in the laboratory have quad speed CD ROM drives that allow the efficient use of CD interactive tutorials, textbooks of medicine, textbooks of the basic medical sciences, and access to the medical literature on CD ROM.

Each machine is capable of digitizing and manipulating video movies for medical demonstration. The one gigabyte hard drive allows sufficient space to store the large files that movies create. Each PC, through special software, can be controlled or observed by a faculty person during live tutorials and training sessions. The observation and evaluation of nine simultaneous sets of individual students and one faculty member that can interact together at one time is the same size as our Problem Based Learning (PBL) groups. These PBL groups using self-directed, facilitated learning strategies, are a core part of the Faculty of Medicine and Health Sciences curriculum, and the computer laboratory is designed to enhance their effectiveness. It is hoped that through internet connections, they will be able to share ideas and learning objectives with PBL groups in other medical schools around the world.

Tutorials and interactive teaching modules, created by faculty members, using special authoring software, contained within a dedicated faculty creative PC station at the faculty offices, will provide the learning materials that have to be regularly introduced and updated for use in the computer laboratory.

For those who would like to find out more about the computer assisted learning strategies of the Faculty of Medicine and Health Sciences, please email *rich@ihcm.unimas.my*

INFORMATION SYSTEM DEVELOPMENT SCHEDULE
1996

	1995				1996				1997				1998				1999			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
(August 94- Oct 97)																				
2. Develop Accounting and Financial Management System (Nov 94 - April 97)																				
3. Develop Human Resource Management System (Jan 95 - July 96)																				
4. Develop Smartcard Applications (June 94 - 99)																				
5. Procure Library System (August 94 - Nov 95)																				
6. Develop Document Imaging System (Dec 95 - 98)																				
7. Develop Executive Management System																				
8. Develop Workflow/EDI System																				

FAQ ON CALM

In InfoSERV no.3, the first part of CALM's services were featured. This issue presents the remaining frequently asked questions (FAQ):

© *What multimedia facilities are available now?*

The new media that CALM provides help to support the following services:

- Multimedia authoring (*Authorware Professional, Macromedia Director*)
- Graphics design (*Infini D, Adobe Illustrator*)
- Audio and Video capture and editing (*Media 100, Adobe Premiere, Adobe Photoshop*)
- Colour imaging (*UMAX Powerlook* 1200dpi)
- Colour and BW printing (*Tektronix Phaser* 300i and Laserwriter Pro 810 - A4 and A3 sizes)
- Multimedia databases (*Power Cumulus*)
- Digital slide production (*Mirus* film recorder)
- CD ROM pressing (*Sony CDW900E*)

Most of the facilities are available on MAC and PC Win systems in the multimedia labs and graphics studio. However, Multimedia Lab 1 is a dedicated R&D lab. accessible only by academic staff and postgraduate students given the nature of development work undertaken in the laboratory.

Multimedia Lab 2 (13 *Power Macintosh*) and Multimedia Lab 3 (13 *ICL ErgoPro* PCs) are open to both students and staff. These laboratories are open every Mon-Sat, from **9.00 am** to **11.00 pm** (closed on Sundays). The labs are also closed to users when training courses are being conducted.

© *What other services?*

The Multimedia Theatre, Image Bank, Photography Studio are some of the on-demand facilities. In future, we shall introduce high end digital printing and desktop multimedia conferencing.

CALM also provides assistance in procurement of audiovisual equipment and multimedia facilities in the form of advice, design and specification.

© *Are the services free?*

Presently, yes, for most of the services. This might change with corporatisation. External customers, however, will be charged according to the rates published by UNIMAS, email *emme@adm.unimas.my* for information.

For UNIMAS users, the use of *OCE* heavy-duty photocopier and *Tektronix Phaser* are charged to the user's Faculty/Centre account through the Finance Division. The charges are minimal to cover toner and paper costs. In the case of audiovisual recording, users are advised to provide their own videotapes. Details can be obtained from the Manager,email *mujid@calm. unimas.my*

© *How to get technology-based training?*

TBT is offered under the UNIMAS staff development programme (Module 4: Part II Multimedia) and includes training on the use of the integrated delivery system in the Multimedia Theatre; instructional design and multimedia authoring, and development tools. If required, specific requests may be made through the Human Resource Management Division.

Other technical systems training provided to CALM staff are also made available to Faculty/Centre/Division by invitation, including educational visits related to CALM's services.

Further enquiries on Module 4, email *hali@calm.unimas.my* To enrol for the module, email *geowain@calm.unimas.my*

© *How to get multimedia support?*

CALM has established a multimedia support group called UNIMAG (ie UNIMAS Multimedia Action Group). The group functions as support to multimedia courseware developers. Membership is open to all staff. For further enquiries, email *csteh@calm.unimas.my*

Seminars on multimedia and applied learning issues are held quite regularly, usually at 1.00 pm, in the Multimedia Theatre, Block S2. Announcements are made via the *NOC* broadcast. Offers of seminars are greatly welcomed; email *hali@calm.unimas.my* to schedule your talk.

© *How to access CALM easily?*

CALM is fully networked and our server, HP9000 *Raflesia,* may be accessed to obtain the various services, particularly via *Eudora* mail. We are currently developing an online ordering service using *Lotus Notes.* When available, users can order services directly from their own desktop.

For the following services, email:

- Multimedia Theatre/video conferencing: *m.teater@calm. unimas.my*
- Multimedia laboratories: *m.media@ calm.unimas.my*
- Graphics design: *grafik@ calm.unimas.my*
- Photography: *senifoto@calm.unimas.my*
- Bank Image/multimedia resources: *b.imej@calm.unimas.my*
- Resource room: *b.sumber@ calm.unimas.my*
- Audiovisual loan: *a.visual@ calm.unimas.my*
- Seminar/meeting room: *mujid@calm.unimas.my*

These services will also be featured on CALM's homepage which is being developed.